

Claims Not Assigned to a Group

The Examiner has restricted the method of using the compounds of the invention into Groups I-V, as follows:

- I. Claims 1-8, and 27, drawn to a method of inhibiting protein kinase activity;
- II. Claims 9 and 34, drawn to a method of treating a hyperproliferative disorder;
- III. Claims 10, 11, and 35, drawn to a method of affecting angiogenesis;
- IV. Claim 12, drawn to a method of treating a disease selected from various groups; and
- V. Claim 13, drawn to a method of inhibiting vascular hyperpermeability.

In addition the Examiner has restricted the compound claims into the following two groups:

- VI. Claims 16-26 and 36, drawn to compounds represented by the formula in Claim 16 wherein Y is S, SO, or SO<sub>2</sub>, and compositions thereof; and
- VII. Claims 16-26 and 36, drawn to compounds represented by the formula in Claim 16 wherein Y is O, and compositions, thereof.

The Examiner has not assigned Claims 14, 15 and 28-33 to a group. Claims 14 and 15 specify a particular type of protein kinase used in the method of Claim 1. Therefore, Applicants believe Claims 14 and 15 should be assigned to Group I. Claims 28-32 specify the stereochemistry of a compound that is used to inhibit one or more protein kinase. Claim 33 in addition to specifying the stereochemistry of the compound used to inhibit the protein kinase also specifies particular protein kinases that are inhibited. Since Claims 28-33 also involve a method of inhibiting protein kinases, Applicants believe that Claims 28-33 also should be assigned to Group I.

Applicants respectfully request that the Examiner indicate whether he agrees with Applicants' assignment of Claims 14, 15 and 28-33 to Group I.

Method Claims of Groups I-V

The Examiner has restricted method Claims 1-13, 27, 34, and 35 into Groups I-V but has not indicated on what basis he has made the restriction.

The method claims of Groups I-V are not patentably distinct inventions because a commonality of operation exists between the methods claimed in each group. In particular, the claims in Group I are directed to a method of inhibiting protein kinase activity by administering a compound of formula I, and the claims of Groups II-V are directed to the treatment of diseases or conditions that are caused by aberrant or excessive activity of one or more protein kinase by administering a compound of formula I.

Protein kinases can be either protein tyrosine kinases or serine/threonine kinases (see page 1, line 11 to page 2, line 2 of the specification). In addition, tyrosine kinases can be of the receptor-type, wherein they have an extracellular domain, a transmembrane domain, and an intracellular domain, or of the non-receptor-type, wherein they are intracellular (see page 3, line 1-3 of the specification).

The claims of Group II are directed to a method of treating a hyperproliferative disorder by administering a compound of formula I. Applicants have disclosed on page 2, line 14-20 of the specification that aberrant or excessive protein tyrosine kinase (PTK) activity is involved in regulating cell proliferation, activation and differentiation. Thus, compounds that inhibit the protein kinases, such as PTK, will thereby treat hyperproliferative disorders.

The claims of Group III are directed to a method of affecting angiogenesis. Applicants have disclosed on page 4, line 15 to page 5, line 25 of the specification that several receptor tyrosine kinases play a role in angiogenesis. Thus, compounds that affect protein kinases, such as receptor tyrosine kinases, will thereby affect angiogenesis.

Claim 13 of Group V is directed to a method of inhibiting vascular hyperpermeability. Applicants have disclosed on page 5, lines 25-26 that VEGF, a ligand for several protein kinases (see page 4, line 15 to page 5, line 19 of the specification), is involved in control and enhancement of vascular permeability. Thus, compounds that inhibit protein kinases that bind VEGF will thereby inhibit vascular hyperpermeability.

Claim 12 of Group IV is directed to a method of treating various diseases. The diseases or conditions listed in Claim 12 all involve hyperproliferation, excessive or insufficient angiogenesis, vascularization hyperpermeability or immune dysfunction. As discussed above, Applicants have disclosed that protein kinases are involved in regulating cell proliferation, angiogenesis and vascular hyperpermeability. In addition, Applicants have disclosed that protein

kinases are involved in inappropriate activation of the immune system (see page 2, lines 18-22 of the specification). Thus, compounds that affect the activity of protein kinases will thereby be useful in treating the diseases listed in Claim 12.

In addition, Groups I-V, as designated by the Examiner, are classified together under class 514 and subclass 227.5. The Examiner has not shown that it would be necessary to search for one of the distinct subjects in places where no pertinent art to the other subjects exists.

M.P.E.P. § 808.02 states the following:

Where, however, the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among related inventions.

Applicants have disclosed that the compounds of the invention have the property of inhibiting protein kinases and that aberrant or excessive protein kinase activity is involved in all of the diseases or conditions for which Applicants claim a method of treatment utilizing the compounds of the invention. Since the methods claimed in the claims of Groups I-V all have a commonality of operation (i.e., inhibition of protein kinase activity), are classified under the same class and subclass and would not need to be searched under different fields of search, Applicants respectfully request that the Examiner reconsider and withdraw the restriction requirement regarding the claims of Groups I-V.

#### Method Claims of Groups I-V and Compound Claims of Groups VI and VII

The Examiner has stated that the inventions of Groups VI and VII and Groups I-V are related as product and process of use. The Examiner has cited the following test for distinct inventions from M.P.E.P. § 806.05(h):

A product and a process of using the product can be shown to be distinct inventions if either or both of the following can be shown:

- (A) the process of using as claimed can be practiced with another materially different product, or
- (B) the product as claimed can be used in a materially different process.

The Examiner has stated that Claims 1-15 are evidence that more than one use for the compounds of the invention exists.

The Examiner has not stated that the process of using the compounds of the invention can be practiced with another materially different product but has stated that the various uses claimed in Claims 1-15 are evidence that the product can be used in a materially different process. However, the processes claimed in Claims 1-15 are not materially different. As discussed above, the method claims of Groups I-V, which encompass Claims 1-15, have a common operational feature. In particular, the compounds of the invention inhibit protein kinases and, thus, are expected to be useful in treating diseases or conditions in which aberrant or excessive protein kinase activity has been implicated. Claims 1-15 are directed to methods of inhibiting protein kinase activity or methods of treating diseases or conditions in which aberrant or excessive protein kinase activity has been implicated. Thus, the Claims 1-15 do not recite materially different processes.

Since the processes claimed in Claims 1-15 are not materially different, the claimed product cannot be used in a materially different process. In addition, there is no evidence that the process of using the product can be practiced with a materially different product. Thus, the product and the process of using the product are not distinct inventions according to the test set forth in M.P.E.P. § 806.05(h).

In view of the above remarks, it is respectfully request that the requirement restricting the method claims of Groups I-V from the compound claims of Groups VI and VII be reconsidered and withdrawn. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned at (781) 861-6240.

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